

## Field Notes

In an effort to share some of the natural history observations made during the fall bottom trawl survey, we have requested that the Chief Scientist on each part of the cruise comment on some of the more interesting catches that were brought aboard the FRV ALBATROSS IV.

### Species of Concern

In the Northeast Region, several species of concern that have received a petition for listing under the Endangered Species Act (ESA) and are currently undergoing formal status reviews include: Atlantic halibut, Atlantic sturgeon, Atlantic wolfish, barndoor skate, cusk and thorny skate. Species of concern are classified as those that are in danger of extinction or risk of becoming endangered or threatened but have insufficient data to list them under the ESA and are not warranted for listing at the time, but there's enough concern or uncertainty that remains regarding their extinction risk and/or threat.

During the first two parts of the survey, eight Atlantic sturgeon ranging in size from 50 to 80 inches (127 to 204 cm) were caught primarily off the mouth of the Delaware Bay and near the beaches of western Long Island. Whenever these animals come aboard (at station 128, four were caught), there is a mixture of awe, excitement and interest in tagging and releasing these armored creatures as soon as possible. Bigelow and Schroeder state that ripe males can grow to 6 to 7 feet and average 65 pounds while spawning females can grow up to 10 feet and 250 lbs. Fish from this year's survey averaged 61 pounds (27.6 kgs).

In the 41 year history of the survey, there are only two other cruises that brought aboard more sturgeon: the 1984 winter survey caught 9 fish and the 1982 winter survey caught 51 individuals; in both cases, the stations were in the inner most strata off from New York City. Sturgeon are anadromous (moving between fresh and salt water) bottom feeders that root in the sand and mud with their snouts which bring up their favorite food: worms and mollusks which they suck up into their toothless mouths. Atlantic sturgeon have been known to live up to 60 years with sexual maturity being reached between 7-12 years of age. Our fish were approximately 15 to 30 years old.

### Fish Outside Their Normal Range

Leg II was a unique cruise because we sailed with only nine staff (we usually sail with 13-14) but we were still able to accomplish minimal sampling. There were not many southern species intruders and there seemed to be an overall lack of large rougtail stingrays and clearnose skates in the Mid-Atlantic Bight (MAB) inshore waters. Of note, we did catch four Atlantic torpedo rays from the western and inshore portions of the Southern New England waters. These impressive animals are generally seen on Georges Bank and in the Gulf of Maine. These specimens ranged in size from 32 to 54 inches (81 to 138 cm) total length; the largest one weighing 121 pounds (55 kg).

### Young Haddock Continue to Thrive

The 2003 year class of haddock continues to thrive. Age-one haddock were caught at 28 stations on Georges Bank. At several stations they dominated the catch, impressively filling our sorting box to the brim. The highest concentrations were observed at stations 192 and 191 on the Southeast part followed by stations 217 and 229 on the Northern Edge

with 3015, 2250, 1051, 736 individuals caught respectively. Catches of haddock in these numbers at this age are unprecedented in the survey's history.

#### Small Atlantic Halibut

Three smaller than usual (6 to 9 inch/15 to 23 cm) Atlantic halibut were caught in the Gulf of Maine and on Georges Bank. The smallest one was caught at station 167 on the eastern side of Nantucket Shoals. Only 15 individuals smaller than this specimen have been caught over the 41-year survey history.

#### Atlantic Wolffish and Atlantic Cod Captures

Conspicuous this year was the absence of Atlantic wolffish from the Gulf of Maine area. Only four individuals were captured this season compared with the 2004 spring survey total of nine. Of those four, only one was an adult at 28 inches (70 cm); the other 3 were all juveniles less than 8 inches (20 cm).

An interesting occurrence was that of young-of-the-year Atlantic cod; our totals showed a nice cluster of lengths from 2 to 4 inches (4 to 9 cm) with a mode at 3 inches (7 cm). It is nice to see some evidence of cod recruitment; in the past, we can remember seeing a scattering of young-of-the-year from cruise to cruise, but this seemed to be a more concentrated amount of fish. Catches of age 0+ Atlantic cod on the fall survey have generally been an inconsistent indicator of subsequent year class strength. Age 1 catches in the 2005 spring and fall bottom trawl surveys may generally provide a more consistent indicator of year class strength for the 2004 year class.

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